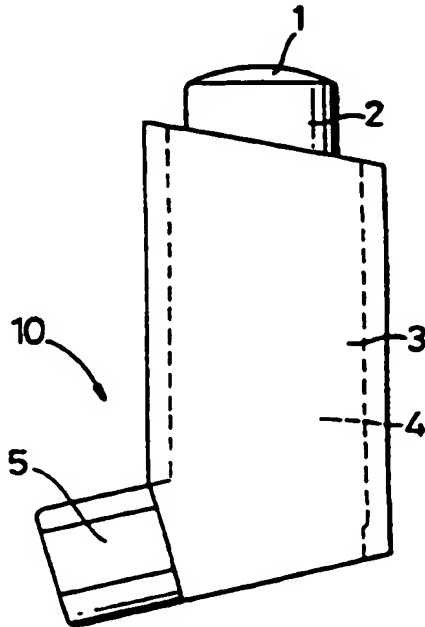


PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification⁶ : A61M 15/00, B65D 83/14</p>	<p>A1</p>	<p>(11) International Publication Number: WO 96/26755 (43) International Publication Date: 6 September 1996 (06.09.96)</p>
<p>(21) International Application Number: PCT/GB96/00430 (22) International Filing Date: 26 February 1996 (26.02.96) (30) Priority Data: 9503845.1 25 February 1995 (25.02.95) GB (71)(72) Applicant and Inventor: MARR, Christoph, Thomas [GB/GB]; Flat 311, 10 Portman Mews South, London W1H 9AW (GB). (74) Agent: MURGITROYD & COMPANY; 373 Scotland Street, Glasgow G5 8QA (GB).</p>		<p>(81) Designated States: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).</p> <p>Published <i>With international search report.</i></p>
<p>(54) Title: A COVER FOR A DRUG DISPENSER</p> <p>(57) Abstract</p> <p>A cover for a drug dispenser (10) includes a hollow sleeve (3) and a button (1). The hollow sleeve (3) fits over the dispenser (10) and the button (1) covers or substantially fills an open end of the dispenser (10). The invention is especially useful where the dispenser (10) is an asthma inhaler.</p> 		

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AM	Armenia	GB	United Kingdom	MW	Malawi
AT	Austria	GE	Georgia	MX	Mexico
AU	Australia	GN	Guinea	NE	Niger
BB	Barbados	GR	Greece	NL	Netherlands
BE	Belgium	HU	Hungary	NO	Norway
BF	Burkina Faso	IE	Ireland	NZ	New Zealand
BG	Bulgaria	IT	Italy	PL	Poland
BJ	Benin	JP	Japan	PT	Portugal
BR	Brazil	KE	Kenya	RO	Romania
BY	Belarus	KG	Kyrgyzstan	RU	Russian Federation
CA	Canada	KP	Democratic People's Republic of Korea	SD	Sudan
CF	Central African Republic	KR	Republic of Korea	SE	Sweden
CG	Congo	KZ	Kazakhstan	SG	Singapore
CH	Switzerland	LJ	Liechtenstein	SI	Slovenia
CI	Côte d'Ivoire	LK	Sri Lanka	SK	Slovakia
CM	Cameroon	LR	Liberia	SN	Senegal
CN	China	LT	Lithuania	SZ	Swaziland
CS	Czechoslovakia	LU	Luxembourg	TD	Chad
CZ	Czech Republic	LV	Latvia	TG	Togo
DE	Germany	MC	Monaco	TJ	Tajikistan
DK	Denmark	MD	Republic of Moldova	TT	Trinidad and Tobago
EE	Estonia	MG	Madagascar	UA	Ukraine
ES	Spain	ML	Mali	UG	Uganda
FI	Finland	MN	Mongolia	US	United States of America
FR	France	MR	Mauritania	UZ	Uzbekistan
GA	Gabon			VN	Viet Nam

1 **A COVER FOR A DRUG DISPENSER**

2

3 The invention relates to a cover for a drug dispenser,
4 and especially a cover for an asthma inhaler.

5

6 There is at present a stigma attached to the use of
7 such inhalers. When asthma sufferers, particularly
8 sportsmen and children, use such a sleeve with their
9 inhaler, there is a stigma attached. It is also known
10 that the inhalers used are of different and dull
11 colours, each colour identifying the different strength
12 of medicine used with that particular inhaler. This
13 colour coded system of inhalers allows hospitals,
14 particularly in the case emergency, to quickly identify
15 the medicine used by that asthma sufferer and can treat
16 the patient accordingly. Using an asthma inhaler
17 widens the air-pipe leading to the lungs, thereby
18 allowing the sufferer to breath more easily.

19

20 It is known that the number of asthma sufferers has
21 risen dramatically over the last twenty years, due
22 mainly to rising levels of air pollution and increasing
23 quantities of 'dust-mites' in households.

24

25

1 Asthma sufferers are faced with the embarrassing but
2 necessary task of using inhalers in public. The length
3 of time an asthma sufferer uses the inhaler should
4 consist normally of one inhalation, which is kept in
5 the lungs for 30 seconds, followed by another
6 inhalation, which is kept in the lungs for 30 seconds.
7 This amount of time can attract attention to the user,
8 thereby causing embarrassment, particularly for
9 children. This stigma may deter children and sportsmen
10 from using their inhaler in public. In the case of an
11 emergency, the absence of such use could prove fatal.

12
13 In accordance with the present invention, a cover for a
14 drug dispenser comprises a member which is adapted to
15 fit over the dispenser, and the member having an
16 external appearance which is different from the
17 appearance of the dispenser.

18
19 Preferably, the drug dispenser may be an asthma inhaler
20 for dispensing a drug which alleviates or mitigates the
21 symptoms of asthma.

22
23 Typically, the member comprises a hollow sleeve.

24
25 Preferably, the member fits over the dispenser in a
26 tight fitting relationship with the dispenser and may
27 be a friction fit on the dispenser.

28
29 Typically the cover may include a top portion which
30 covers or substantially fills an open end of the
31 member. Alternatively, the cover may include a top
32 portion which attaches to the top of the dispenser
33 before or after the member has been placed on the
34 dispenser. Typically, the top portion may attach to an
35 end of a cartridge containing a drug.

36

1 Preferably, the member may be manufactured from a
2 plastic, polymeric, rubber or synthetic rubber
3 material. Alternatively, any other suitable material
4 may be used.

5
6 The external surface of the member may be textured or
7 moulded to a shape different from the external shape of
8 the dispenser onto which the member fits.

9
10 Alternatively, or in addition the member may have a
11 pattern or ornament on its external surface.

12
13 An example of a cover for a drug dispenser in
14 accordance with the invention will now be described
15 with reference to the accompanying drawings in which:-

16
17 Fig. 1 is a side view of an asthma inhaler, and a
18 sleeve and button prior to fitting to the inhaler;
19 Fig. 2 is a side view showing the sleeve being put
20 over the inhaler;
21 Fig. 3 is a side view showing the sleeve and
22 button both fitted to the inhaler;
23 Fig. 4 is a plan view of the sleeve and button
24 fitted to inhaler; and,
25 Fig. 5 is a bottom view of the sleeve and button
26 fitted to inhaler.

27
28 Fig. 1 shows an inhaler 10 which comprises a casing 4
29 and a cap 5. An asthma drug canister 2 is shown
30 inserted into the casing 4 of the inhaler 10. Also
31 shown is a sleeve 3 and a button 1 prior to fitting the
32 sleeve 3 and button 1 onto the casing 4 and canister 2,
33 respectively.

34
35 Fig. 2 illustrates the sleeve 3 being slid over the
36 casing 4. The sleeve 3 is a friction fit on the casing

1 4 and the sleeve 3 grips the casing 4 by means of high
2 friction rubber from which the sleeve is manufactured.

3

4 Fig. 3 illustrates the sleeve 3 fully fitted on to the
5 casing 4. The button 1 is also fitted to a top end of
6 the drug canister 2. After the sleeve 3 and the button
7 1 have been fitted, the inhaler is ready to be used.

8

9 Figs, 4 and 5 show a plan view and a bottom view
10 respectively of the inhaler 10 with the sleeve 3 and
11 button 1 fitted.

12

13 Fig. 5 shows the area of the casing 4 which has been
14 left uncovered by the sleeve 3.

15

16 The button 1 is attached to the drug canister 2 by
17 adhesive. The button 1 is supplied with the sleeve and
18 a user of the inhaler fits the sleeve 3 and the button
19 1 to the inhaler 10. The sleeve is tight fitting with
20 respect to the casing 4. If high friction rubber is
21 used to make the sleeve 3 this enhances the grip of the
22 sleeve 3 on the casing 4.

23

24 The sleeve 3 may be made out of an elastomeric material
25 or plastic material which is a friction fit onto the
26 inhaler casing 4. Alternatively, any other suitable
27 material could be used.

28

29 The sleeve 3 may have a pattern on its external
30 surface. This pattern will differ in colour and in
31 shape, depending on which model it is. For example,
32 for children, sportsmen or women, teenagers or dress.
33 The sleeve can be textured and may be injection moulded
34 from plastic in an injection moulding machine.

35

36 On another model of cover, the sleeve 3 may be in the

1 form of a grip which may appear similar to the shape of
2 a ski-stick grip, that is with grooves large enough for
3 fingers to grip the inhaler more effectively.

4
5 The basic concept, however, is the same regardless of
6 the outer shape of the sleeve 3. The sleeve 3 may be
7 adaptable to fit all inhalers with a similar shape to a
8 Metered Dose Inhaler (MDI) which has been used as an
9 example in Figs. 1 to 5

10

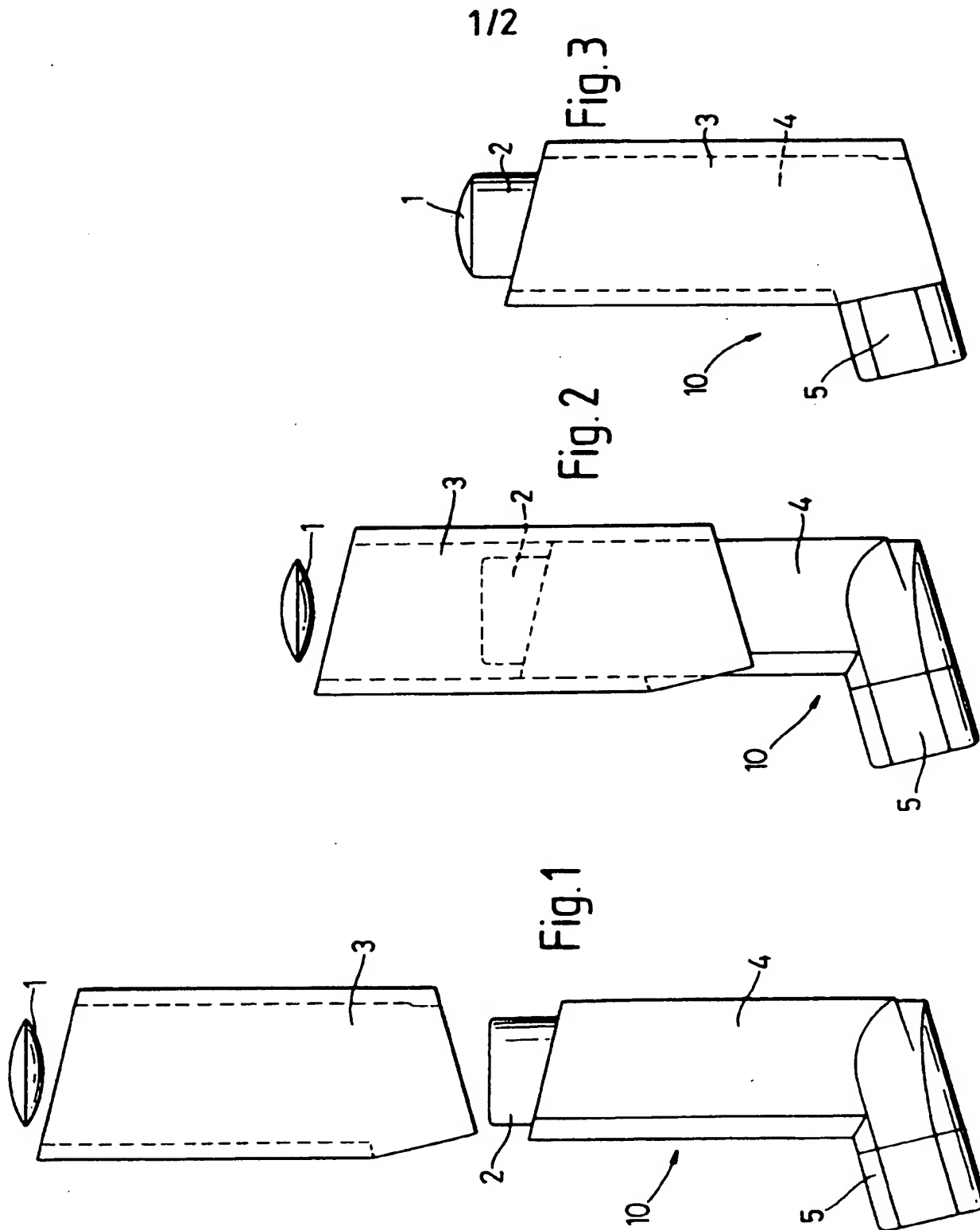
11 Advantages of the invention are that it removes or
12 reduces the stigma attached to the use of asthma
13 inhalers. This is done by providing a cover which may
14 be textured and/or patterned and/or coloured and is
15 adapted to conform to the casing 4 of the inhaler 10.
16 The sleeve 3 will have some form of pattern. The
17 different models intended, for example, various
18 children's models, various sports models and various
19 'teenager' models should make users of the inhaler more
20 comfortable using it in public, thereby reducing the
21 stigma attached to the use of such an inhaler. The
22 sleeve should reduce the stigma attached to using such
23 a medical aid. In turn, more children, sportsmen and
24 sportswomen will be encouraged to use their inhalers,
25 thereby avoiding potential asthma attacks.

26

CLAIMS

1. A cover for a drug dispenser comprising a member which is adapted to fit over the dispenser and the member having an external appearance which is different from the appearance of the dispenser.
2. A cover according to claim 1, wherein the member comprises a hollow sleeve.
3. A cover according to claim 1 or claim 2, wherein the member fits over the dispenser in a tight fitting relationship with the dispenser.
4. A cover according to claim 3, wherein the member is a friction fit on the dispenser.
5. A cover according to any of the preceding claims, and further comprising a top portion which covers an open end of the member.
6. A cover according to claim 5, wherein the top portion attaches to an end of a cartridge containing a drug.
7. A cover according to any of the preceding claims, wherein the external surface of the member is textured.
8. A cover according to any of the preceding claims, wherein the external surface of the member has a pattern on it.
9. A cover according to any of the preceding claims, wherein the external surface of the member has at least two colours.

- 1 10. A cover for an asthma inhaler according to any of
- 2 the preceding claims.
- 3



2/2

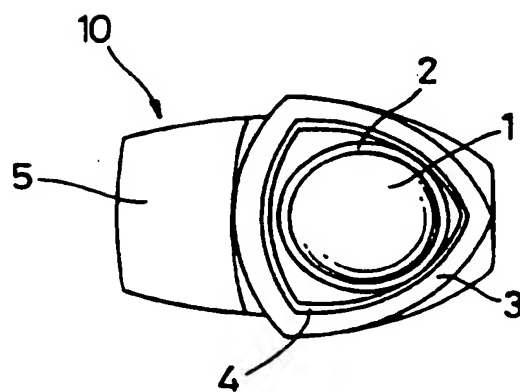


Fig. 4

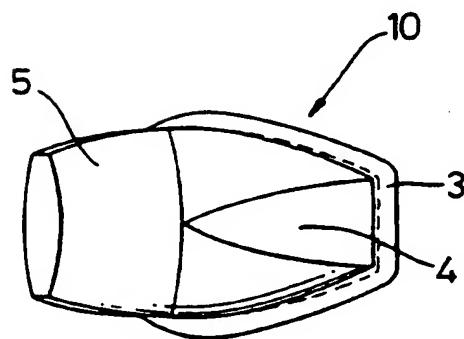


Fig. 5

INTERNATIONAL SEARCH REPORT

Intern. Appl. No.
PCT/GB 96/00430

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 A61M15/00 B65D83/14

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 6 A61M B65D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB,A,2 214 891 (FIBRENYLE LTD) 13 September 1989	1-7
Y	see abstract; figures 1,2,6,9-11 see page 6, line 33 - page 8, line 4; figures 22-24 see page 9, line 34 - page 10, line 2 see page 12, line 23 - line 36 ---	8,9
X	GB,A,1 120 945 (FISONS PHARMACEUTICALS LIMITED) 24 July 1968	1-6,10
Y	see page 2, line 117 - line 129; figure 1 see page 1, line 9 - line 17 ---	7
X	EP,A,0 308 100 (BESPAK PLC) 22 March 1989 see abstract; figure 1 see column 5, line 5 - line 9 ---	1-6
	--- -/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *d* document member of the same patent family

Date of the actual completion of the international search

3 June 1996

Date of mailing of the international search report

11.06.96

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patendaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax (+31-70) 340-3016

Authorized officer

Zeinstra, H

INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB 96/00430

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	FR,A,2 086 553 (L'ORÉAL) 31 December 1971 see page 4, line 36 - page 5, line 7; figures	7
Y	GB,A,843 371 (PEERLESS TUBE COMPANY) 4 August 1960 see page 1, line 74 - page 2, line 15; figures 1,5	8,9

INTERNATIONAL SEARCH REPORT

information on patent family members

International Application No

PCT/GB 96/00430

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
GB-A-2214891	13-09-89	NONE	
GB-A-1120945		BE-A- 667569	28-01-66
		DE-B- 1294596	
		FR-A- 1463014	02-03-67
		NL-A- 6510415	14-02-66
		SE-B- 316573	27-10-69
		US-A- 3302834	07-02-67
EP-A-0308100	22-03-89	AU-B- 2188888	09-03-89
		CA-A- 1307985	29-09-92
		DE-A- 3871300	25-06-92
		FI-B- 94391	31-05-95
		GB-A- 2209564	17-05-89
		GB-A- 2240816	14-08-91
		IE-B- 61129	05-10-94
		SG-A- 121693	21-01-94
		US-A- 4896832	30-01-90
FR-A-2086553	31-12-71	DE-A- 2125432	30-11-72
		GB-A- 1347034	13-02-74
		US-A- 3738540	12-06-73
GB-A-843371		FR-A- 1201907	06-01-60